Technical Table

Devices	Optium 1.0 F1				Optium 1.0 F2		
Mounting	On plate						
Breaking capacity (ICU)							
380/415V	10kA	16kA	25kA	36kA	16kA	25kA	36kA
220/240V							
Service Breaking Capacity (Ics)	50%	50%	50%	50%	50%	50%	50%
Characteristics of use							
Nominal frequency	50Hz				50Hz		
Maximum rated operating voltage	Upto 550 V				Upto 550 V		
Category of use	A				A		
Thermal magnetic adjustment							
Thermal	FIXED (1xIn)				FIXED (1xIn)		
Magnetic	FIXED (Inx10)				FIXED (Inx10)		
Electronic protection adjustment	—				—		
Maximum cable cross-section							
Rigid cable	2.5 to 16 mm^2			10 to 50 mm^2	35 to 50 mm^2	35 to 150 mm^2	
Flexible cable	2.5 to 10 mm^2			10 to 50 mm^2	35 to 50 mm^2	35 to 120 mm^2	
Copper bar and lug width	17mm			17mm	17mm	25mm	
Tightening torque	3 Nm			6 Nm	6 Nm	13 Nm	

Nominal current at 40 degree												
In (A)	16	25	32	40	50	63	80	100	125	160	200	250
Phase	16	25	32	40	50	63	80	100	125	160	200	250
N	16	25	32	40	50	63	80	100	125	160	200	250

Magnetic threshold	Fixed									Fixed		
In (A)	16	25	32	40	50	63	80	100	125	160	200	250
Phase	160	250	320	400	500	630	800	1000	1250	1600	2000	2500
N	160	250	320	400	500	630	800	1000	1250	1600	2000	2500

Endurance						
Electrical	1500	8000		1000	8000	
Mechanical	8000	25000		7000	25000	

Technical Table

Devices	Optium 2.0 F1		Optium 2.0 F2	
Mounting	On plate		On plate	
Breaking capacity 380/415V 220/240V Breaking capacity %Icu	16kA 100%	25kA 100%	16kA 100%	25kA 100%
Characteristics of use Nominal frequency Maximum rated operating voltage Category of use	50Hz Upto 550 V A		50Hz Upto 550 V A	
Thermal magnetic adjustment Thermal Magnetic	0.8 to 1 In FIXED (10 In)		0.8 to 1 In FIXED (10 In)	
Electronic protection adjustment	—		—	
Maximum cable cross-section Rigid cable Flexible cable Copper bar and lug width Tightening torque	2.5 to 16 mm^2 2.5 to 10 mm^2 17mm 3 Nm	10 to 50 mm^2 10 to 35 mm^2 17 mm 6 Nm	35 to 50 mm^2 35 to 50 mm^2 17 mm 6 Nm	35 to 150 mm^2 35 to 120 mm^2 25 mm 13 Nm

Nominal current at 40 degree In (A)	25 to 125A								160 to 250 A		
Phase	25	32	40	50	63	80	100	125	160	200	250
N	25	32	40	50	63	80	100	125	160	200	250

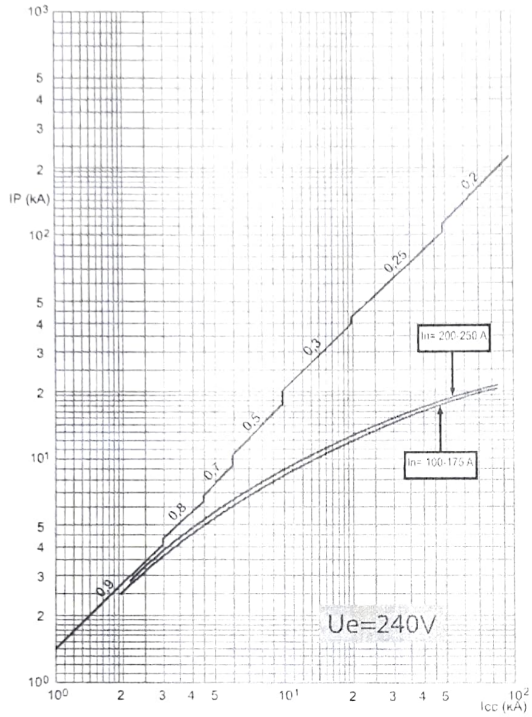
Magnetic threshold In (A)	Fixed (10 In)								Fixed (10 In)		
Phase	25	32	40	50	63	80	100	125	160	200	250
N	250	320	400	500	630	800	1000	1250	1600	2000	2500
	250	320	400	500	630	800	1000	1250	1600	2000	2500

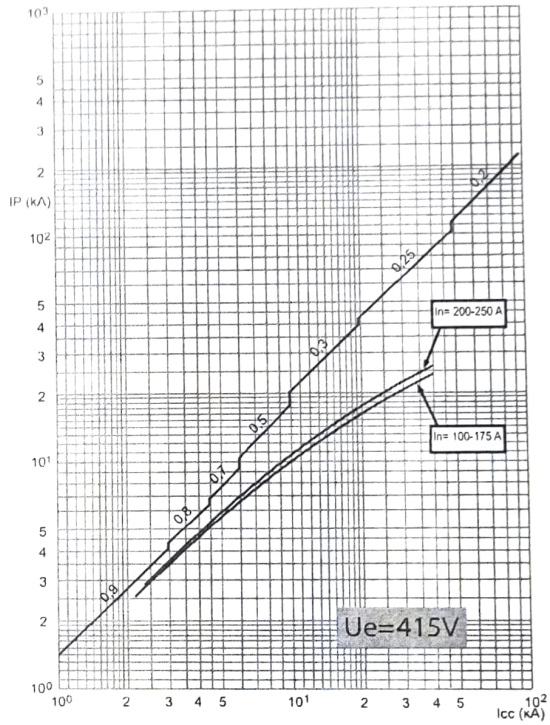
Endurance				
Electrical	8000		8000	
Mechanical	25000		25000	

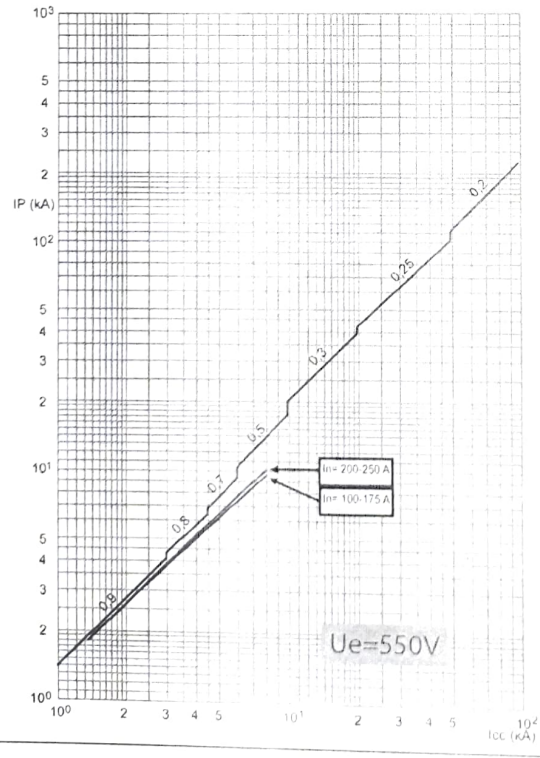
Technical Characteristics - MCCB

Data limitations of current

Frame 2 - In (160A - 250A)





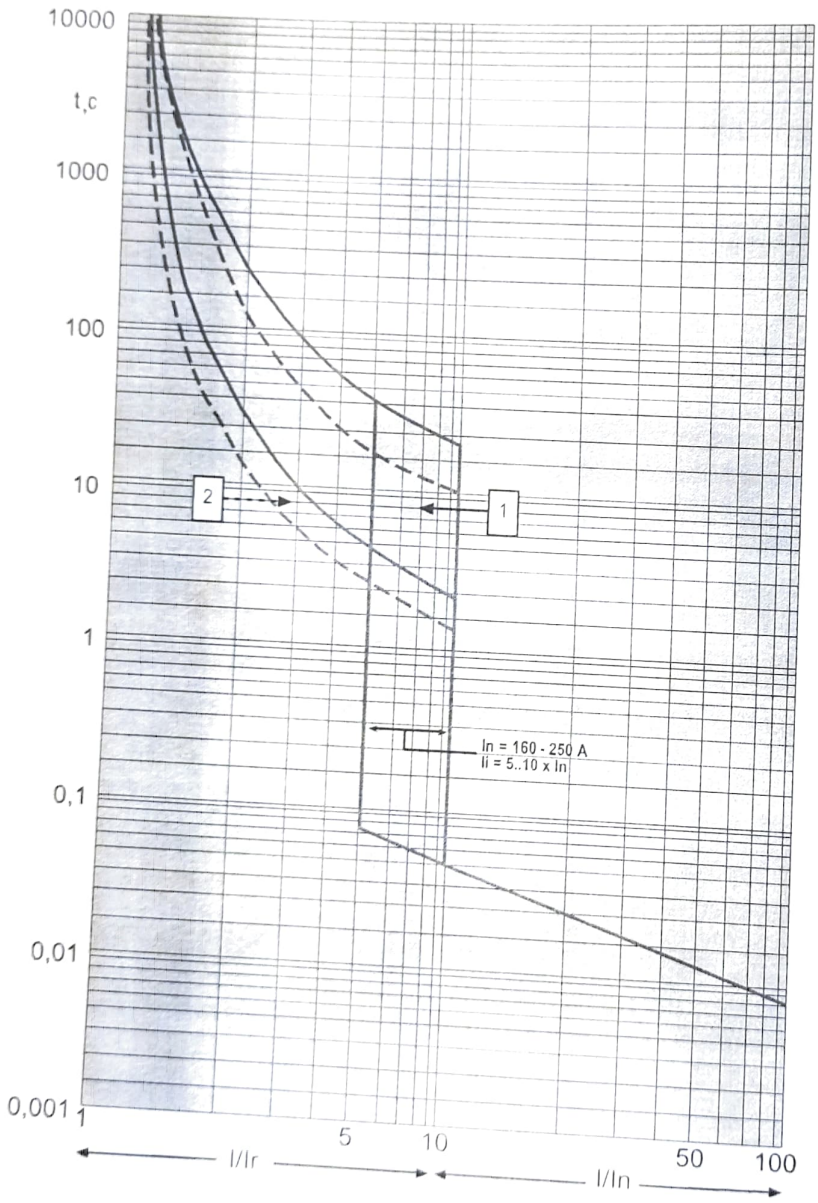


Limited impact the value of a short current circuit (the actual maximum value of) depending on the current values of expected short-circuit current

Technical Characteristics - MCCB

Time current characteristics

Frame 2 - In (160A - 250A)

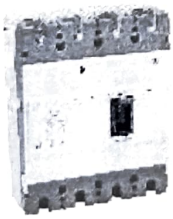


I - load current ;
Ir - the maximum value of the current setpoint thermal release . Rated current breaker depends on the bench current heat release ;
1 - area of work from the "cold" state thermal release
2 - working area of the "hot" state TE Pilaf release (in working condition)

The multiplicity of the load current to the rated current of the circuit breaker

Frame	Breaking capacity	Rating	3P	4P
F1	36kA	16	830061	830075
F1	36kA	25	830062	830076
F1	36kA	32	830063	830077
F1	36kA	40	830064	830078
F1	36kA	50	830065	830079
F1	36kA	63	830066	830080
F1	36kA	80	830067	830081
F1	36kA	100	830068	830082
F1	36kA	125	830069	830083

Frame	Breaking capacity	Rating	3P	4P
F3	50kA	16	830125	830145
F3	50kA	25	830126	830146
F3	50kA	32	830127	830147
F3	50kA	40	830128	830148
F3	50kA	50	830129	830149
F3	50kA	63	830130	830150
F3	50kA	80	830131	830151
F3	50kA	100	830132	830152
F3	50kA	125	830133	830153



Frame	Breaking capacity	Rating	3P	4P
F2	16kA	160	830090	830095
F2	16kA	200	830091	830096
F2	16kA	250	830092	830097
F2	25kA	160	830100	830105
F2	25kA	200	830101	830106
F2	25kA	250	830102	830107
F2	36kA	160	830110	830115
F2	36kA	200	830111	830116
F2	36kA	250	830112	830117

ROTOPLAST WIRES AND CABLES

MFG: PVC FLEXIBLE SINGLE, MULTICORE WIRES, POWER CABLES
GALA NO. 3 & 4, Nr.SHRI GANESH INDUSTRIAL ESTATE, BESIDE GREEN MASJID, PARMAR TALAO, VASAI FATA, VASAI (E), DIST. PALGHAR – 401208

Website: www.rotoplastcables.com Email: rotoplastcables@gmail.com
MOBILE: 9986672160

ROUTINE TEST REPORT

PARTY NAME :- CHOWDESHWARI ELECTRICALS
SIZE :- 3.5 CORE X 240 SQMM
STANDERED ALUMINIUM CONDUCTER, XLPE INSULATED, **PVC INNER SHEATHED, ARMOURED, PVC SHEATHED CABLE,**
TYPE :- A2XFY
QUANTITY-500MTRS

SR NO	DESCRIPTION	UNIT		3.5 CORE X 240 SQMM
1.	MAKE			ROTOPLAST
2.	STANDERD APPLICABLE			IS-7098 P (1)
3.	VOLTAGE GRADE	VOLTS		1100 V
	CONSTRUCTION DETAILS			
4.	A) MATERIAL	ALUMINIUM		ALUMINIUM CLASS -2
	B) NO OF WIRES AND SIZE			61/2.24 & 37/2.03 MM
	C) SHAPE			STANDERD, CIRCULAR
	INSULATION			
5.	A) INSULATION MATERIAL			XLPE
	B) AVG. INSULATION THICKNESS	MM		1.70 & 1.20 MM
	C) MIN INSULATION THICKNESS	MM		1.43 & 0.98 MM
	D) COLOUR CODE			RED, YELLOW, BLUE,BLACK
	INNER SHEATH			
6.	A) MATERIAL	PVC		PVC TYPE – ST1
	B) THICKNESS OF INNER SHEATH	MM	(MIN)	0.50 MM
	ARMOURE			
7.	A) G I STRIP			G I STRIP
	B) SIZE	MM		4.0 X 0.80 MM
	OUTER SHEATH			
8.	A) MATERIAL	PVC		PVC TYPE- ST2
	B) THICKNESS OF OUTER SHEATH	MM (MIN)		2.04 MM
	C) COLOUR OF OUTER SHEATH			BLACK
	D) O.D.	MM		56.0 MM (+/- 4.0mm)
	ELECTRICAL CHARATERISTICK			
9.	A) D.C. RESISTANCE AT 20^0 C	Ω/KM	(MAX.)	0.125 & 0.253 Ω/ KM
	B) VOLUME RESISTIVITY AT 27^0 C	Ω-CM	(MIN)	1×10^{14} Ω-CM
	C) VOLUME RESISTIVITY AT 90^0 C	Ω-CM	(MIN)	1×10^{12} Ω-CM
	D) H.V. 3 . O KV FOR 5 MINUTES			WITH STOOD
	MACHANICAL CHARACTERISTICK			
10.	A) HOT SET TEST AT 200^0 C FOR 15 MINUTES	%	(MAX)	175 %

	B) PERMANENT SET ELONGATION AFTER RELOAD	%	(MAX)	15 %
	C) SHRINKAGE TESTE AT 135^{0} C FOR 1 HRS	%	(MAX)	4.0%
	D) TENSILE STRENGTH INSULATION	N/SQ.MM	(MIN)	12.5 N/SQ.MM
	E) ELOGATION OF INSULATION	%	(MIN)	200 %
	SHEATH			
11.	A) TENSILE STRENGTH SHEATH	N/SQ.MM	(MIN)	12.5 N/SQ.MM

Q.C./ LAB INCHARGE

For ROTOPLAST WIRES AND CABLES

Proprietor/Manager